1936

Contribution of the National Education Association committees to secondary education - summation and justification

Anna. La Rose
University of Massachusetts Amherst

CONTRIBUTION OF THE NATIONAL EDUCATION ASSN. COMMITTEES TO SECONDARY EDUCATION

SUMMATION AND JUSTIFICATION

LA ROSE - 1936

SUBJECT

CONTRIBUTION OF THE NATIONAL EDUCATION ASSOCIATION COMMITTEES TO SECONDARY EDUCATION-- SUMMATION AND JUSTIFICATION

ANNA LA ROSE

THESIS SUBMITTED FOR THE DEGREE OF

MASTER OF SCIENCE

AT MASSACHUSETTS STATE COLLEGE, AMHERST

JUNE, 1936

ACKNOWLEDGEMENTS

I wish to express my
sincere appreciation to
the following people who
have guided me in writing
this thesis:

Mr. Winthrop S. Welles, M.D.
Mr. Harold M. Gore, B.S.
Mr. George W. Alderman, B.A.

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INTRODUCTION

While each state is self determining in its education program, there is much in common among them. From time to time, committees of national scope have worked over the field of secondary education. Their personnel and their findings have had nationwide effects.

This study is made as one of those suggested by the Office of Education, United States of America, to bring together the work of the National Education Association Committees on Secondary Education in the United States, and show what general progress has resulted.

BRIEF HISTORY OF THE NATIONAL EDUCATION ASSOCIATION

In August of the year 1857, a handful of men met in Philadelphia, Pennsylvania, to organize a National Teachers' Association. Previous to this time, the movement had begun in New York and Massachusetts. A call was issued and widely circulated in 1856 inviting "All practical teachers in the northern, southern, eastern, and western parts of the United States, who were willing to unit in a general effort to promote the general welfare of our country by concentrating the wisdom and power of numerous minds and by distributing among all, the accumulated experiences of all who are ready to devote their energies and their means to advance dignity, respectability, and usefulness of their calling".

Thus, at the August meeting held at Philadelphia, a constitution was adopted and drafted and officers were elected the following year. A feature of interest to mention at this point that was implied in the constitution was the government of the association by a board of directors elected at an annual meeting. The board was to consist of a president, a secretary, a treasurer, twelve vice-presidents, and one counselor from each state, district, or territory.

The practice was developed of appointing a nominating committee which was to be made up of one member from each state represented.

One general principle was fundamental in the usefulness of the meetings of the newly formed organization. The individual, strong in some points and weak in others, found complementary strength in the experience of his fellow teachers, strong where he was weak and weak where he was strong. This very principle prevails in the spiritual world which affords every man, woman, and child the golden opportunity of profitable participation in the experience of another. This principle describes, specifically, the function of the Teachers' Associations and generally, the function of education in its entirety. What is education but the reinforcement of the individual by the experience of the family, community, nation, and race. In this light, education could be defined as the elevation of the individual into participation in the life of the species.

This principle of education, the very principle that makes possible what we value as civilization in contrast to savage life, is appealed to as an explanation and justification of the existence of the National Education Association.

"Concentrate the wisdom and power of numerous minds:
Distribute to each the accumulated experience of all."

At the present time the National Education Association is composed of nine departments:

Department of School Superintendents
Department of Normal Schools
Department of Elementary Schools
Department of Kindergarten Instruction
Department of Secondary Education
Department of Higher Education
Department of Industrial Education

Department of Art Education
Department of Music
National Council of Education

The National Council of Education is composed of sixty members, ten of whom are chosen annually from members of the Association. The Council comprises twelve standing committees of five members each, who carefully consider assigned topics.

Any person who is in any way connected with the work of education is eligible for membership by paying a small yearly fee.

The Association is and has been the bodyguard of public school instruction in the United States.

ORIGIN OF THE COMMITTEES OF THE NATIONAL EDUCATION ASSOCIATION ON THE SECONDARY EDUCATION IN THE UNITED STATES

In the year 1892, it was agreed upon by all members of the National Education Association that the most defective part of the educational system in the United States lay in the secondary school program. The wide divergence, coupled with the difference of opinion regarding what constitutes a secondary education program, worked injury not only to the elementary school system by setting up uncertain standards of admission but through a want of proper requirements for graduation prevented in numerous cases, the continuance of the education of the yough in colleges and universities. The conflict of opinion on what should constitute a secondary school program necessitated the formation of a committee to end the conflict regarding secondary education and to establish a better understanding of just what a student should study in order to gain most from his secondary education.

Thus, the first committee to investigate this problem was formed by the National Education Association in the year 1892. From this year on, this organization has appointed a chain of committees to investigate educational problems existing in the United States and set up recommendations which would solve or aid in the solution of existing problems. It is interesting to note, in many cases, that each report grows out of some preceding committee report, in which a problem

has arisen. The association feels that this problem should be dealt with alone and consequently appoints a special committee to investigate and recommend.

These reports carry tremendous weight as the investigators and formulators are well-known educators who are well versed in the subject they explore. Investigation is not limited to one portion of the country and thus recommendations cover the whole educational area of the country. This is accomplished by requesting educational representatives from all parts of the United States to serve and unite in a general effort to suggest solution for the problem set before them.

Exceptional work, illustrated in the latter part of the thesis, has been accomplished by these committee reports, some contributing much, some contributing little, but all striving to aid in the progress of the educational system of our country.

Each committee has been guided by the principle set forth by the National Education Association:

> "Concentrate the wisdom and power of numerous minds:
> Distribute to each the accumulated experience of all."

Report of the Committee on Secondary School Studies-1892

The report of the Committee of the National Education Association on Secondary School Studies represents a careful study of the entire field of secondary education. Representing the leader in this movement, the report is considered as one of the most valuable documents in the history of the National Education Association Reports on Secondary Education.

In July, 1892, thirty delegates, representatives of leading colleges and secondary schools in different parts of the country, met in conference at Saratoga. As a result of the discussion, the conference sent the following specific recommendations to the National Council of Education:

1. It is expedient to hold a conference of secondary school and college teachers of each principle subject entering into the secondary education program in the United States and into requirement for admission to college. It is the duty of each conference to consider the proper limits of its subjects, the best methods of instruction, the most desirable allotment of time, and the best methods of testing pupils' attainments.

2. A committee should be appointed with the authority to select members for these conferences and arrange their meetings.

The National Council accepted the recommendations and appointed the following educators to serve on the grand committee:

Charles Elliot--President of Harvard College
William Harris--Commissioner of Education, Washington, D.C.
James B. Angel--President of University of Michigan
John Tetlow--Headmaster of Girls' Latin School, Boston, Mass.
Oscar Robinson--Principal of Albany High School, N.Y.
James Taylor--President of Vassar College, Poughkeepsie, N.Y.
James Baker--President of University of Colorado, Boulder, Colo.
Richard Jesse--President of University of Missouri, Columbia, Mo.
James Mackenzie--Headmaster of Lawrenceville High School, New Jersey
Henry King--Professor at Oberlin College, Ohio

This committee of ten met at Columbia College, New York, on November 10, 1892, to organize conferences on the following subjects:

Greek	Mathematics
Latin	Physics, Chemistry, Astronomy
English	Natural History
Modern Languages	History, Civil Government,
Geography	Political Economy

The committees were nine in number and included ten representatives on each separate subject, all great authorities in their respective work. It is interesting to note that of these ninety educators, forty-seven of them were in the service of colleges or universities, forty-two in the service of public schools, and one government official, formerly in university service. Each committee sat for a period of three days. It gave special consideration to the following questions:

1. In what part of the school program from the ages six to eighteen, inclusive of elementary and secondary education, should the subject of discussion be introduced?

2. How many hours a week for how many years should be devoted to it?

3. How many hours a week for how many years should be devoted to it during the last four years of the complete course in high school?

4. What topics may reasonably be covered in the time alloted?

5. What topics may best be reserved for high school program?

6. In what form and to what extent should the subject enter into requirements for admission to college?

7. Should the subject be differentiated for students entering college, for students entering scientific schools, for students who are going to neither?

8. At what stage should differentiation begin is recommended?

9. Can any description be given the best method of teaching this subject throughout the school course?

10. Can any description be given the best mode of testing attainments in this subject at college entrance examinations into a preliminary and final, separated by a year, can the best limit between the preliminary and final examination be approximately defined?

The discussions of the separate conferences were frank, earnest and thorough. In most cases dissenting opinions were unanimous. It is remarkable to note, when one takes into consideration the varied localities, professional experiences, institutions, and personalities which w ere represented in each of the conferences, the striking unanimity that was developed.

The reports were completed by October, 1893. The most difficult tasks were found by the conferences on Physics, Chemistry, and Astronomy; Natural History; History. Consequently, these four were the longest and most elaborate for the simple reason that these subjects were more imperfectly dealt with than any of the other assigned conference subjects. It was the ardent desire of the representatives of these four subjects to place their subjects on an equal footing with Latin, Greek, and Mathematics. They knew full well that educational tradition was adverse to such an idea as education advisors felt no confidence in these subjects as disciplinary material.

Summary of Recommendations of Committees

GENERAL RECOMMENDATIONS

Earlier Introduction of Subjects

All of the committees desired the elements of their subjects taught earlier. All, except the Conference on Languages, wished to have given in the elementary school what may be termed a perspective view or broader survey of the respective subject, in the later years of schooling to be taken up with more amplitude and detail. The Conference on the Languages desired the subject to be introduced earlier.

The Committee of Ten is aware that it is impossible to make a satisfactory secondary program limited to four years and founded on present elementary subjects and methods. In the opinion of the committee, several subjects, now reserved for high school curriculum-algebra, geometry, natural sciences, foreign languages-be introduced earlier. Thus, the secondary school should begin two years earlier leaving six instead of eight years for elementary education. This marks the beginning of junior high school in our educational system. The committee also believes that elementary methods and subjects are kept in use too long.

Certain objectives were ascertained by the conferences pertinent to the earlier introduction of subjects in school program. The objectives were in the form of criticisms:

1. The high school teacher finds in pupils fresh from grammar school no foundation of elementary mathematics outside of arithmetic, no acquaintance with algebraic language and little or no accurate knowledge of geometrical forms.

2. On the subjects, botany, zoology, chemistry, and physics, the minds of the students were blank.

3. When the college professor attempts to teach chemistry, physics, botany, zoology or geography to students from eighteen to twenty years of age, he discovers that in most instances new habits of observing, reflecting and recording must be painfully acquired by the student, habits that should have been acquired in early childhood. This may also be true of present day conditions.

4. The Conference on History discovered that the students had devoted little time to historical investigation.

It is obvious and inevitable that the specialists in any subject pursued in the high schools and colleges should desire and demand that the minds of the young be stored with elementary facts and principles pertinent to the subject. All mental habits which an adult student will need should be formed in the mind of the individual before the age of fourteen.

Time Allotment

The reports of these conferences were especially noteworthy for their moderation in respect to time allotment. The confer-

ences on Latin, Greek, and Mathematics were completely satisfied with the amount of time given these subjects in the secondary school program. The Conference on Geography felt that too much time was given to the subject in proportion to the results secured. It is not their decision that more time is given the subject than it merits but either more should be accomplished or less time taken to attain it. The Conferences on Physics and Astronomy, Chemistry, Natural History, and Geography held a combined session in Chicago, 1895, and passed a resolution that one-fourth of the whole high school course should be devoted to Natural Sciences.

The Committee of Ten believes that to establish just proportions between several subjects, it is essential that each be taught thoroughly and extensively and for an adequate number of periods per week on the program. In the specific recommendations, time allotment is given for each subject.

Simplification of the Program

The conferences gave a great deal of consideration to the simplification of the secondary school program. Each of the nine committees wishes its subjects to be introduced into the elementary school program and all agreed that these different subjects be correlated one with another by program and actual teaching. If all of the conferences sat together, they could not have more forcibly expressed the idea that every

subject recommended for elementary and secondary schools should help each other and the teacher of each separate subject should feel responsible for the advancement of pupils in all other subjects.

Relationship between Secondary Schools and Colleges

The conferences set forth general principles of relationship existing between secondary schools and colleges:

1. Secondary schools of the United States do not exist for the purpose of preparing boys and girls for colleges.

2. Only about twenty percent (20%) of graduates of these schools go to colleges and scientific schools.

3. The main function of the secondary school is to prepare for duties of life that proportion of children who show themselves able to profit by an education prolonged to eighteen years of age.

4. It is desirable that colleges and scientific schools be accessible to all students completing a high school course.

5. The committees recommend:

a. All subjects be made of equal rank for the purpose of admission to college.

b. All subjects be taught thoroughly to develop powers of observation, expression, reasoning.

c. Satisfactory completion of any one of the four year high school courses embodied in the program be admitted to corresponding courses in colleges and scientific schools on examination.

Note. It is believed that this close articulation would be advantageous for the schools, colleges, and the education of the country.

Necessity for Professional Preparation of Teachers

A frequent repetition of the idea is found in this report that in order to introduce desired changes, more highly trained teachers are needed. A superintendent may say, "The recommendation is sound but it cannot be carried out without a superior squad of trained teachers at my command." It must be remembered that these Conferences were urged by the Committee of Ten to advise it as to the best possible treatment of each subject taught in secondary schools without losing sight of actual conditions or pushing their recommendations beyond what may be considered attainable in a moderate amount of years.

For further instruction of teachers in actual service, the committees recommend three agencies already in existence which could be utilized to a greater extent.

1. Summer Schools
2. University Extention Courses
3. Superintendent Instruction to a large body of teachers

SPECIFIC RECOMMENDATIONS

The recommendations that have been presented in the preceding pages of the report deal with the general ideas as set forth by the total of the conferences. The recommendations presented below are the result of the study of each conference on its separate subject.

Latin

1. Earlier introduction into the curriculum
2. Translation at sight to form a constant and increasing part of examinations for admission to college
3. Greater variety of Latin authors

Greek

1. Cultivation of sight reading
2. Three years minimum time for study
3. Pre-requisite of Latin

English

1. Pursued through four years of high school course
2. Important in admission of student to college
3. Correlation with every other subject in the curriculum

Mathematics

1. Mapping of the course to begin at the age of six
2. Course in concrete geometry introduced into the elementary school in connection with drawing
3. Systematic algebra to begin at fourteen years of age
4. Teaching must be more concrete in form and more attention must be paid to facility and correctness in work
5. Concrete geometry to start at the age of ten, to occupy one school hour a week, for three years

6. Correlation of concrete geometry with algebraic signs and forms, elementary physics

Note. Here is an example of interlacing of subjects which seems so desirable to all the nine conferences.

Physics, Chemistry, Astronomy

1. Introduction by study of simple natural phenomena
2. Better preparation of teachers by a special list in science to instruct in methods of teaching simple phenomena
3. Methods--
   a. Direct contact
   b. Labratory
   c. Notebooks
   d. Lectures and Demonstrations
   e. Texts
4. Time alloted--one period a day from first day of primary school thru high school course

Natural History

1. Study of Botany and Zoology-introduced in primary grades and steadily pursued not less than two periods a week through high school
2. Early correlation with Language, Literature, Drawing
3. Later methods--
   a. Labratory notebook - trains child in art of expression
   b. Text
4. Necessity for trained teachers

History, Civil Government, Political Economy

1. Strong correlation with other subjects, especially English
2. Instruction on important Economic topics urged in secondary education
3. Instruction in History be contributory to work in Geography, Drawing
4. Civil Government introduced in grammar school by means of oral lessons and in the high school by texts
5. Continuity of course for eight years
6. Time allotment-three periods a week for eight years

7. Grammar school-apportionate study of history of other countries
   a. High school-intensive method
8. Methods--
   a. Notebooks
   b. Reports
   c. Texts

Geography

1. Definition--"Physical Environment of Man"
2. Improvement in means of illustration
   Maps, charts, etc.
3. Correlation with English, Drawing, History
4. Study of Physical Geography
   a. Envelop all natural sciences

Note. The conference realized that it is presenting an ideal course which could not be effective immediately. If the course could be carried out, it feels sure that it would be interesting, informing, developing.

Modern Languages

1. Elective course in German or French be provided in grammar school
2. Method of facilitating progress of beginners
   a. Lift over hard places
   b. Frequent reviews
   c. New texts to stimulate interest and increase vocabulary
3. Necessity for special trained teachers

In light of the brief outlines of the recommendations of the nine conferences, we may conclude that the joint conferences assent to the following subjects for secondary school programs:

1. Languages; Latin, Greek, English, German, French
2. Mathematics; Algebra, Geometry, Trigonometry
3. General History: Special epochs
4. Natural History: Physics, Chemistry, Astronomy, Meteorology, Botany, Zoology, Physiology, Geography, Ethnology

Report of the Committee on College Entrance Requirements--1899

There was no educational subject that required serious attention, demanding a calmer discussion, keener appreciation of the trend of present civilization than the relationship existing between secondary and college education. Colleges were at variance as to what constituted a liberal education in the closing years of the century which began with scarcely few, if any, differences in educational opinion, while the secondary schools were awaiting, on one hand, the abridgement and enrichment of the common school curriculum, and, on the other, a more uniform expression of opinion on the part of the colleges as to their functions.

The college courses should be so adjusted that every student, at the end of his secondary education, recognized as excellent in quality and quantity of his work, may see the doors of any college swung open to him, for the purpose of deeper research and higher culture along the lines of his mental aptitudes. The universal recognition of this oneness of education would bring about harmonious relations between the secondary schools and colleges. To develop such harmony, the Department of Education appointed a committee of five to represent secondary schools and a similiar committee to represent colleges and universities, the two to compose a committee of conference whose duty it is to report a plan for

Thus, in April, 1895, the committee was appointed respectively by the Departments of Secondary and Higher Education to study the question of college entrance requirements for the purpose of harmonizing relationships between secondary and higher education to the end, that the former may do their work as schools of the people, and at the same time furnish adequate preparation to pupils for more advanced study in academic colleges and technical schools.

The committee representing secondary education:

William Carey Jones--Berkeley, California
A. F. Nightingale--Chicago, Illinois
Charles H. Thurber
J. Remsen Bishop
William H. Smiley

The committee representing higher education:

Nicholas Murry Butler--New York City
B. A. Hinsdale--Ann Arbor, Michigan
James E. Russell--Boulder, Colorado
Paul Hanas--Cambridge, Massachusetts

An invitation was extended to four associations which were maintained for the purpose of furthering the interests of secondary and college education to cooperate with the national committee in investigation.

New England Association	Bushnell Hart John Tetlow Ray Green Huling
Middle States and Maryland Association	Melvil Dewey E. H. Griffin Wilson Farrand
Southern Association	W. P. Trent E. A. Alderman
Northern Association	G. B. Gilbert J. H. Canfield W. H. Butts

The work of the committee included an investigation of existing college entrance requirements and a report of ways and means of securing such uniformity in extent and method The plan of procedure was: (1896)

1. The committee was to invite the cooperation of the four associations already mentioned.

2. Requirements be considered in the following groups:

English	History
Classical Languages	Mathematics
Modern Languages	Science

3. Special attention was to be given to what should constitute a year's work in each subject.

4. Efforts should be directed toward the establishment of more satisfactory college entrance requirements.

A preliminary report of the committee was read at the Milwaukee meeting in 1897. The committee members felt that a close affiliation could be brought about between secondary schools and colleges by the adoption of a plan consistent with what secondary schools can do and what colleges must have. They felt that all omens pointed to success. Requirements for admission are being leveled up, wide options allowed, and the element of value in preparation is to be a time element. "Harvard, Cornell, Vassar, Michigan, Stanford are unfurling their banners of freedom."

Summary of the Recommendations of the Committee

The following recommendations are submitted as the results of four years of intensive thought, study and investigation. They contain the opinions of scores of distinguished educational leaders. Therefore, they bear much weight and should meet with the approval of at least the better class of colleges and secondary schools in the American education system.

Subject Recommendations

English

The committee states that the study of English language and its literature is inferior in importance to no other subject in the school curriculum. It affords training for the mind and introduces the pupil to the literature of his own tongue, always a chief source for his thoughts.

Two elements should be included in a course of study:

1. Study of English language
2. Cultivation of art of expression

Committee recommends:

1. Two departments--Literature and Composition
   a. Pursued side by side
   b. One supplement and strengthen the other

2. Time allotment
   a. Four periods per week for four years

3. Value
   a. Serve as one unit for admission to college

History Civics Economics

1. Principle of consideration for history
   a. Provision should be made for elasticity in this subject so that the schools may fit for college and adapt themselves to local environmental needs.

   b. A series of interchangeable units should be set forth of the same apparent value which would meet with acceptance everywhere, thus, one unit of history taught in one place should equal one unit taught in another, even though the subject matter varies. Such an arrangement will tend to make the curriculum more flexible and at the same time preserve all legitimate claims growing out of differences in environment.

2. Values
   a. Economics--one year to serve as one unit for admission to college
   b. History and Civil Government--one year to serve as one unit for admission to college

Mathematics

1. Suggestions for subject arrangement:
   a. Grades 7-12 A forty-five minute period

7th grade--	Concrete geometry and introductory algebra	4 periods
8th grade--	Introductory demonstrative geometry and algebra	4 periods
9-10th grade-	Algebra and plane geometry	4 periods
11th grade-	Solid Geometry and plane trigonometry	4 periods
12th grade-	Advanced algebra and mathematical reviews	4 periods

2. Value
   a. The following courses count toward a satisfying requirement for admission to college:

Elementary Algebra	1½ units
Advanced Algebra	½ unit
Plane Geometry	1 unit
Solid Geometry	½ unit

Sciences

1. Arrangement of courses in natural and physical sciences:

Physical Geography

Place--first year of high school
Value--one unit for admission to college
Time---four periods a week for one year

Biology

Place--second year of high school
Value--one unit for admission to college
Time---four periods a week for one year
Division:
one-half year of Botany or one year in
one-half year of Zoology either

Physics

Place--third year of high school
Value--one unit for admission to college
Time---four periods a week for one year

Chemistry

Place--fourth year of high school
Value--one unit for admission to college
Time---four periods a week for one year

Resolutions

The following resolutions adopted by the committee which guided its work may be considered as the first principles in adjustment between secondary and higher education. These resolutions are stated below with a brief explanation in each case.

1. "The principle of election be recognized in secondary schools" - The student must no longer be limited to a single group of prescribed subjects alone securing admission to college. Free and unrestricted election is not suggested but election after careful consideration by pupils, teachers, and parents.

2. "Requirements for admission to technical schools be as extended and thorough as for colleges" - If a student were allowed to enter technical schools at lower requirements than colleges, too many students would leave high school before graduation.

3. "Teachers in secondary schools be college graduates or have the equivalent of a college education" - In many departments in high schools, work is being done as advanced as the first year of college. The policy of recruiting high school teachers from college graduates would elevate the high school to a dignified position.

4. "A unified six year high school course of study beginning with the seventh grade be introduced" - A six year elementary school and a six year high school would form symmetrical units. The transition of the child from the elemen-

tary grades to the secondary period may be made easily and naturally, changing from one teacher regime to a system of special teachers, avoiding the shock felt by entering high school. The inspiration afforded by a well-equipped high school would do much to retain desirable students in high school, thus raising the educational standard of American citizenship.

5. "Colleges select only those subjects they deem wise and appropriate for their admission requirements as the secondary schools are unable to pursue all subjects" - No medium size school can include all subjects: Every secondary school, worthy of the name, should offer:

two years--Foreign Languages
two years--Mathematics
one or two years--Sciences
English

Colleges should be explicit in regard to constants and electives.

6. "Certain number of constants be required in all secondary schools and in all requirements for admission to colleges"- The committee recommends that a number of constants be recognized in the following proportions:

four units--Foreign Languages
two units--Mathematics
two units--English
one unit---History
one unit---Science

The committee would have constants suggestive not unalterable.

7. "Colleges aid secondary schools by allowing credit toward a degree for work in secondary school done beyond the amount required for entrance, when equality in amount and

thoroughness parallels the work done in college in that subject" - If by a chance a pupil should graduate with conditions or lack of full units, due to ill health or to change of school, the child may remain in school another year to make up the subject lost. If he discovers that carrying extra subjects to fill his program may not be counted for college credit, he may carry an easy program and fall into indolent habits. If the additional subjects are accepted, the incentive for staying in school an additional year is strong.

8. "For the student who meets a definite requirement for science and who continues the subject in college, a program of suitable sequel to the course is desirable" - Such advanced students should in no way be placed in the same class with beginners.

9. "Recognition of the admissibility of a second year in advanced work in a same subject instead of in a related subject" - Example: two years in Botany, instead of one year in Botany and one year in Chemistry. One teacher can instruct more thoroughly in one subject than in several subjects.

10. "Recommended that any piece of work comprehended within the studies included in this report that has covered at least one year of four periods per week in a well-equipped secondary school under competent supervision be considered of worth to count toward admission to college."

11. "Increase in school day in secondary schools to permit a large amount of study under supervision desirable" - A large

majority of pupils attending secondary school are of the middle and poorer classes. They have a poor place to work. In large cities and towns, the school building offers better facilities for study.

It is the fundamental problem of this committee to formulate courses of study in each of the separate subject of the curriculum which shall be substantially equal in value, both in quantity and quality of work done.

The committee does not expect that all colleges make the same entrance requirements nor that all high schools have the same program of studies. It does desire that colleges will state their requirements in terms of national units or norms and that the high schools build up their program out of the units furnished.

The committee refrains from entering upon the task of constructing curriculums to be imposed for the sake of uniformity, upon the schools of the country. Such uniformity is unnecessary but uniformity in courses of study which shall lead to the establishment of national units does seem to be of most importance.

Report of the Committee of Seventeen on Professional Preparation of High School Teachers--1907

It has been obvious throughout the two preceding reports submitted that one fact alone stood out as a criticism of the secondary school organization, namely, the secondary school instructions are not sufficiently trained to carry out the proposed curriculum to its fullest extent. In the latter recommendations of the report of the committee on Secondary School Studies, the committee members proposed the utilization of certain agencies already in existence for the training of teachers.

Due to the strenuous criticism of the reports of 1892 and 1899, the Secondary Department of Education, at a meeting at Asbury Park, submitted to the idea of appointing a committee to consider the subject of securing proper professional preparation for high school teachers. In recognition of the proposed resolution, Dr. W. Lyttle, New York Inspector of Schools, then president of the Secondary Department, appointed the following committee of seventeen:

Reuben Post Halleck--principal, Boys' High School, Louisville, Kentucky

H. M. Barrett--principal of high school--Pueblo, Colorado
Frederick E. Bolton--professor of education, State University of Iowa
Stratton D. Brooks--superintendent of schools, Boston, Massachusetts
J. Stanley Brown--superintendent of Joliet, Illinois, Township High School
Edward F. Buchner--professor-philosophy and education, University of Alabama
John W. Cook--president, Northern Illinois State Normal School
E. P. Cubberly--professor of education, Leland Stanford Jr. University

Charles DeGarmo--professor of science and art of education, Cornell University
Edwin G. Dexter--professor of education, University of Illinois
Paul H. Hanus--professor of education, Harvard University
E. O. Holland--junior professor of education, University of Indiana
C. H. Judd--professor of psychology, Yale University
John R. Kirk--president, Missouri State Normal School
George W. A. Juckey--professor of education, University of Nebraska
George H. Martin--secretary, Massachusetts Board of Education
M. V. O'Shea--professor of science and art of education, University of Wisconsin

Because the subject was somewhat new, it seemed wise to have a comparatively large committee, representing all parts of the United States, who were authorities on the subject for investigation. All of the committee members have at some time served as high school teachers. Seven of the professors have taught in secondary schools and are experts in this field. In addition, they have added advantages of connection with universities of education. Several of the other members, in addition to the two connected at present with normal schools, were formerly high school and normal school teachers.

Reuben Halleck, chairman of the committee, requested every member of the committee to prepare a paper on some phase of the subject. All of the members complied with the request and thus the report is a compilation of the various ideas set forth by these seventeen educators.

"There was an Elizabethan stage, which could permit Shakespeare's plays, because more than a century previous, certain towns had rules like this to determine who should act in the miracle play.

> All such as they shall find sufficient in person and cunning, to honor the City and worship of the said Crafts, for to admit and allow the able; and all other sufficient persons, either in voice or person, to discharge, ammove, and avoide."

The twentieth century must follow the example set forth by this ancient tradition and "ammove and avoide" all teachers who are unable to play the rôle of teaching successfully. Every year, many persons are desirous of obtaining positions in high schools whom any professional individual or professional school could not fashion into a successful high school instructor. It would be a great act of kindness to weed out such possibilities. "There would be joy among untold adolescents, if schools of education would act as a sort of St. Peter, to bar the gate against all the manifestly unfit who think they have a 'call' or who propose to break in uncalled."

Summary of the Recommendations of the Committee

The Committee of Seventeen conclusively agree that the following points should be given consideration in preparaing high school teachers for a successful career:

1. No matter in what field the high school teacher expects to teach, he must know the groundwork of psychology, and its educational applications. Skepticism has been shown in certain quarters about the utility of this subject in teaching but common sense alone tells us that psychology is of value to any teacher. The gateway to teaching pupils is by means of the nervous mechanism. The teacher should possess a working knowledge of this mechanism, physiologically and psychologically. Thus, the high school teacher would be better equipped to perform one of his most important functions, teaching the high school student how to study. He would be better equipped to apply correct disciplinary measures when necessary. He would be sympathetic and tolerant when the occasion demanded, and strict and persevering when such application was necessary.

2. A high school teacher should make a thorough study of apperception to furnish a philosophical reason why he should not be a narrow specialist but an individual of broad culture. His education must be so broad that he can determine the educational values of different studies and "know

what instruments to employ in order to introduce richness and harmony in the education orchestra." He needs to be responsive to all influences which afford a variety to life and quicken the imagination. "One cannot send the whole child to school unless the whole teacher has gone to school." The teacher must realize that she is dealing with the future citizens of the democracy and she must furnish in each student an incentive to uphold the ideals already established in the direction of progress.

3. The high school teacher must gain an appreciation of the difference between a knowledge of subject matter and the recasting of it to fit the pupils' minds. "Knowledge is knowledge", says a university professor; "all that is necessary is to give the high school teacher plenty of it and his pupils will get it." But has this idea been proven a truth? Such a question would be childish if it were not for the fact that educators, today, are saying that knowledge is the prime essential and other things will naturally take care of themselves.

4. Of course, the primary essential in training a teacher is to furnish him with ample knowledge of the subject he is to teach. If he is to instruct in French, it would be better for him to study it four years in high school and four years in college, but along with this knowledge, he should be made to see how French could subordinate or strengthen other subjects taught in high schools.

5. Every high school teacher should have a definite course in recasting his subject to fit the pupil. The teacher must reshape the subject in terms of the pupil, otherwise the student becomes perplexed, discouraged, and often leaves school. Two practical ways may be used in carrying out this idea:

a. The pupil's point of view is adopted by the professor. Under these conditions, the candidate is required to present the subject matter.

b. Actual practice in a secondary school maintained by the university, in schools of the city where the university is situated or in distant high schools, is extremely valuable.

6. Every high school teacher should be encouraged to spend one year, at least, for graduate study, at some university engaged in the professional preparation of teachers.

7. Every high school teacher should have, as a part of training, a good course in library instruction. The teacher should learn the points of view of various types of adolescents and be prepared to suggest books interesting to them in all fields. Every decade sees the hours of labor shortened. What will the adolescent do with his leisure time? Will he be attracted to a degrading activity or will his activity lead him into a fruitful channel? Thus, the teacher, who has made a special study of reading, can do much to implant in the adolescent a love for it.

8. Professional training should equip the teacher with the best methods of character building, to establish the student on a firm moral basis. The instructor should be taught how to select noble ideals and ideas from history, literature, etc. for life around him. He should discover the individual likes, capacities and enlist them in the right direction. The child should emerge from the high school with high ethical ideals.

9. A high school teacher should have a knowledge of the school administration. He should be able to orient the work of the entire school and have a clear idea of what a well rounded secondary school should accomplish.

10. A brief knowledge of the history of education and the history of the development of the secondary education system is desirable and necessary. It would give the teacher, through knowledge and appreciation of the present in light of the past, a breadth of view and grasp of work as a whole.

The committee members agree that all teachers during their professional preparation need to secure by instruction and experience a working knowledge of childhood and adolescence, need to acquire in teaching, the habit of basing daily instruction on the learner's mental content and attitude, need to discover by experiment what his talents are and in this view carry out what he is destined to do best.

Report of the Committee on the Place of Industries in Education--1910

At a meeting of the National Education Association in July, 1907, a resolution was read before the Board of Directors by Mr. Frank Leavitt, president of the Manual-Training Department.

"Whereas, The accumulative work of the department during the last two years seeking a more rational statement of courses of manual training, seems now to indicate a necessity for some definite work by a special committee.

Be it there resolved, That the manual-training department of the National Education Association recommend the appointment of a committee for the purpose of collecting data of the manual-training work done throughout this country, that suggestive courses adaptable to various conditions found therein, may be formulated by them."

To carry out the request, a committee was organized at the meeting of the Department of Superintendence at Washington, February, 1908, with the following membership:

Jesse D. Burks, Director, Bureau of Municipal Research, Pennsylvania
Charles Richards, Director, Cooper Union, New York City
Edgar S. Barney, Principal, Hebrew School, New York City
Howard D. Brundage, Teachers College, Columbia University, New York City
Charleton B. Gibson, Superintendent of Schools, Columbus, Georgia
Charles H. Keyes, Supervisor of Schools, Hartford, Connecticut
Elizabeth Langley, School of Education, University of Chicago

Frank M. Leavitt, Director of Manual Training, Boston, Massachusetts
George A. Merrill, Principal, California School of Mechanical Arts, San Francisco, Calif.
Charles H. Morse, Secretary, Commission on Industrial Education, Massachusetts
Charles F. Warner, Principal, Technical High School, Springfield, Massachusetts

A report of progress was made by the committee in July, 1908, and the Board of Directors authorized the increase in number of the committee. For the investigation of industrial and technical education in secondary education, with which I am primarily interested, the following educators were added to the committee:

Charles Keyes — William Elson
Arthur Dean — Charles Warner
George Merrill

In the field of secondary education, there exists a great discrepancy between the theory and the reality. In the report of the Comissioner of Education, one hundred and fifty schools are classified as manual training and industrial schools. It has been discovered, through investigation, that only one-half of the number give attention to manual training and thirty of the seventy-five are public high schools devoting from five to nine hours a week to manual instruction. The committee wished to see the number of hours in manual training increased or separate schools established, specifically for the purpose of industrial education. Industry, as a controlling factory in social progress, has for education a fundamental and permanent significance. The social aim of education and

the psychological needs of childhood require that industrial activities form an important part of school activities, especially during the secondary period, the time of unrest, emotional unstability and storm and stress which characterizes the commencement of adolescence. To avoid problems which arise from this state, constructive and individual reasoning should begin. This period should afford an adequate basis of experience for choice of a speciality and considerable guidance should be given in the process of selection.

Plan of Work

The committee, especially those members considering the place of industries in secondary schools, made a special study of industrial and technical education in secondary schools. In making this extensive study, they concluded to investigate:

1. Necessity and requirements for secondary and technical schools
2. Existing methods of instruction and careers of graduates in schools in this field
3. Opinions as to the extent to which technical courses and academic work of schools be made more directly vocational and whether this vocational work could be best done in existing schools or sepa rate ones
4. The needs of girls as well as boys
5. Demands for evening schools

The committee found it necessary from the outset to formulate definitions of the three types of industrial schools: Manual Training High School--A school of secondary

grade in which the handiwork is minor to the academic work, the greater part of the work being similar to that done in an ordinary high school, neither manual or academic work directed toward a vocational service.

Secondary Technical School or a Technical High School prepares pupils primarily for industrial leadership. Instruction includes important manual operations, principles of science and mathematics.

Trade School prepares students for entrance to skilled mechanical trades. It deals with pupils during a brief course and allows for earlier preparation for practice work than the technical high school.

Conclusions made from the Survey of the Committee on the Place of Industries in Education

From the survey of the committee, the following conclusions were made:

1. It is apparent that all of the existing industrial and technical high schools, now operating in the United States, should be classified as manual training high schools.

2. From evidence, these manual training high schools are giving a useful and important service.

3. It is clear from analysis that these manual training high schools do not in any degree cover the field or accomplish the purpose of either the secondary technical high school or the trade school.

4. There are many children who should be directed, by school influence, toward industrial life and prepared for efficient service in it.

5. The technical high school should have for its main objective the preparation of pupils for efficiency in a large group of important positions in industrial life. They should aim to cultivate industrial intelligence and qualities essential for efficient industrial leadership.

It is clear that boys entering mechanical trades leave public school before graduation from the elementary school. The beginning of trade education should be had in schools that will draw their pupils largely from a class of boys

who have not graduated from the elementary school. Their courses of study should be intensively vocational.

7. There is an urgent need for evening trade and technical classes for bettering the opportunities of men and women already employed during the day. The committee believes the best service that could be rendered by schools having laboratory and shop equipment is to extend it for such use for evening classes.

8. The main ideas are applicable to girls as well as boys.

The committee sent letters to supervisors of technical schools inquiring the spirit and purpose of their schools in order to formulate a more definite plan for future extension of industrial work in our secondary schools. The majority of supervisors agreed on three points:

1. Technical schools should not prepare for college.
2. The academic work and the manual work should be closely correlated.
3. The secondary technical schools should prepare a student for an industrial life.

Through investigation, the committee concluded that many of the so called technical high schools are not truly technical in character. They are not carrying out the requirements of a technical high school.

Since there was an urgent call for evening trade instruction, the committee studied this problem. It found that evening instruction was necessary to the youth who

was already engaged in day time vocations. The Technical High School in Springfield now offers courses following this suggestion. Thus, Springfield was the pioneer in this movement. Harfford, New York City, Cambridge, and Providence also followed the suggestion and provided similiar classes.

Some thought was given to industrial education courses for girls. The aim of a course of this type for girls is of a two-fold nature:

1. Enable girls, by home making training, to enter homes of their own, ably prepared to assume their duties intelligently, to result in the perpetuation of the highest type of home.

2. Train girls for work in distinctly feminine occupations.

In Boston, a Girls' High School of Practical Arts was established. The first year included a general course. The choice of industrial career was made during the second year and training is pursued along that line for two years. The academic and shop work is thoroughly correlated.

The Cleveland High School established a department of industrial and art training. The subject matter is mostly centered on domestic sciences.

Report of the Committee on the Economy of Time in Education--1913

The organization of the Committee on the Economy of Time in Education was promted by a problem that long disturbed educators. The period of education as a whole is too long. How may it be shortened without injury to the educands? The National Education Association, in 1908, appointed a committee to undertake investigation and solve the disturbing problem. In response to the appointments,

James H. Baker, President, University of Colorado
James Van Sickle, Superintendent, Springfield, Massachusetts
William Smiley, Superintendent, Denver, Colorado
Henry Suzzallo, Professor of Philosophy, Columbia University
Albion Small, Professor of Sociology, Chicago University

immediately took the responsibility upon their shoulders and started investigation.

Plan of Work

The Committee of Investigation assumed this form: Their special problem was the length of the college course and its relation to the university proper. They discovered that in order to solve this problem, a comprehensive study of the whole field of education must be carried out to discover the waste in the elementary education system, the place secondary schools should occupy, and the relation of educational aims to the civic

needs and the ideals of our civilization. If the period of education is too long, could not economy in subjects and methods save approximately two years in the entire period of education? By putting stress on greater efficiency in earlier periods, could not the college course end nominally at twenty years of age instead of twenty-two?

The investigation was divided into phases among the committee members. It was agreed upon that Chairman Baker investigate the college and its relation to the university and the secondary school; Superintendent Van Sickle, the elementary program; Superintendent Smiley, the secondary program; Professor Suzzallo, the educational principles involved in the inquiry; and Professor Small, the sociological point of view involved.

Conclusions made by the Committee

All of the committee members agree that the graduate and professional studies should begin at the age of twenty. They formulated after some investigation a provisional time schedule:

Elementary Education	6-12 years
Secondary Education	12-18 years
College	18-20 years
	16-20 years
University	20-24 years

Individual Conclusions

Professor Suzzalo — Educational Principles Involved

Professor Suzzalo felt that the period of general education should be shortened for the graduate school work to fall within the period of greatest energy. The standards of culture must be modernized to make our general education effective. The school system fulfills such a need by the division of education into three units; elementary, secondary, and higher. There is little functional differences between the three. Collegiate education intensifies and expands the culture of the secondary school while the secondary school enlarges the liberal training given in the elementary unit. For economy, the subject matter should be made a means and not an end.

Albion Small — Sociological Point of View

Education must be in harmony with its environment but it must develop original power to change that environment and to cope with whatever problems of efficiency and ethical conditions a given period may present.

It seems evident that earlier specialization beginning at twenty years of age would promote industrial and scientific interests and thus result in knowledge of many governmental and sociological problems. By shortening the two additional years of active life and greater power, enthusiasm of the earlier age would be a great economic advantage.

Professor Small attacked his problem by sending circular letters, with twelve questions and the provisional time scheme proposed by the committee, to one-hundred sociologists. On one important question--What is your view on the time scheme--the majority approved of it heartily.

Superintendent Van Sickle — Elementary School

Mr. Van Sickle concluded that there was a waste of time in elementary school and that the elementary period should extend from six to twelve years. He stated that the saving of time could be made in the following manner:

1. Exercise of the principle of selection
   a. Choice of most important topics and subjects
   b. Period confined to mastering the tools of education
   c. Accomplish a maximum of training with a minimum of material
2. Inclusion of the last two years of elementary school in the period of secondary education
   a. Subjects: algebra, geometry (constructive) elementary science, history

Superintendent Smiley — High School

The desired high school period is to fall in between the ages twelve to eighteen or twelve to sixteen and the college period between eighteen to twenty or sixteen to twenty. This proposition will adjust itself in the following way:

1. The high school student begins high school work at a proper time and continues it up to the recognized age for college admission or the beginning of life. (12-18)

2. It provides for a large number who will enter vocations. (12-16)

3. It provides for the contingency that the college course in the reorganized scheme will end with the sophomore year and two other years may be spent in higher institutions. Thus the independent colleges may formulate a four year course admitting from high school at the age of sixteen. (16-20)

As to the economy of time in high school, Mr. Smiley recommended the adoption of the principle of selection, as illustrated in the elementary school recommendations, the simplification of the course of study, and the vitalization of subjects by relation to modern life. He emphasized the importance of moral training and preparation for worthy citizenship.

James Baker — College

Chairman Baker recommended that the graduate school and the last two years of college should be shaken together and reorganized into one division of education, namely a real university, preparation for which should end at twenty years.

The committee recommended that the National Association of State Universities and the National Department of Superintendence be urged to continue work on the problem, as they feel it yet hasn't been solved after their thorough investigation. Upon them, according to the committee, rests the responsibility of the final solution.

The greatest accomplishment of the committee, I believe, is the excellently worked out time scheme:

Elementary Education	6-12 years
Secondary Education	12-18 years
College	18-20 or 16-20 years
University	20-24 years

CONCLUSION ON THE

REORGANIZATION

OF

SECONDARY EDUCATION

Need for Reorganization of Secondary Education

One of the greatest commissions ever appointed by the National Education Association is the Commission on the Reorganization of Secondary Education in the United States in 1912. Its conclusions and recommendations are of much value to the secondary school as the majority of its committee members are the greatest authorities in the field of secondary education that could be found in the United States.

Why was a program of reorganization necessary? What could possibly hinder the progress of secondary school education? What role does society play in the drama of secondary education? Answers to questions of this type illustrate vividly why the National Education Association felt a need for a reorganization program of secondary school education in the United States.

Secondary education should be determined by the needs of society to be served, the character of individuals to be educated and the knowledge of educative theory and practice to be available. These three factors, however, are not by any means static. Society is constantly undergoing the process of change. The character of the secondary school population undergoes modification. Sciences, upon which the educational theory and practice

adjustment when the time arises leads to a necessity for extensive reorganization at irregular intervals. Reorganization at this time is due to several variations.

There are changes in society that affect the individual. As a citizen, he copes with community, state, national and international problems. As a worker, he must adjust himself to more complex an economic system and as an individual, an independent personality, his problem centers on the worthy use of leisure time. These three problems call for a high degree of intelligence and understanding, which cannot be secured through elementary and secondary education alone, unless the scope is broadened.

The responsibility of the secondary school is still further increased because many social agencies afford less stimulus for education. In vocations, we see the substitution of the factory system for the domestic system, the use of machinery in place of manual labor and the high specialization of progesses with division of labor. In the home life of the individual, the occasional withdrawal of the mother from the home to the factory, and the increased urbanization, increases the task of the school.

Changes in secondary school population require an investigation into the problem of reorganization. It is evident from these statistics that the number of school pupils is decreasing:

1899-1900	1-120	of school population
1899-1900	1-121	to
1909-1910	1--89	
1914-1915	1--73	

The character of this secondary school population is modified to a large extent due to the entrance of a large number of pupils of widely varying capacities, aptitudes, and destines in life. The broadening of the scope of the secondary education program has brought to school many students who do not complete the full course but leave at various stages. These pupils cannot be neglected. The following statistics illustrate this sad state of affair. These facts can no longer be safely ignored.

1/3 of pupils entering first year of elementary school reach the four year high school
1 in 9 graduates

1/2 to 2/3 of pupils entering the seventh school year reach the four year high school

Four year high school candidates:
1/3 leave before the beginning of the second year
1/2 are gone before the beginning of the third year
1/3 or less graduate

Changes in educational theory necessitate secondary school reorganization. Educational psychology emphasizes that the student varies in capacities and aptitudes. The subject matter should be re-examined and re-interpreted in terms of the child. It also emphasizes that at certain stages, there are psychological changes that are so pronounced that they completely overshadow continuity of development. On this basis secondary education has been sharply separated from elementary education. Our modern psychology, however, holds that the development of the child is in most respects a continuous process. Any sudden or

All of these changes which have been states call for extensive modification of secondary education programs. It is the desire of the National Education Association that the Commission on the Reorganization of Secondary Education will formulate a comprehensive program of reorganization. It is hoped that it will be adopted, with suitable adjustments, in all the secondary schools in the Nation. This is the tremendous task assumed by the Commission on the Reorganization of Secondary Education.

The commission consists of ten member at large:

*Clarence D. Kingsley, State High School Inspector, Boston, Mass.
Hon. P. P. Claxton, United States Commissioner of Education, Washington, D. C.
Thomas H. Briggs, Associate Professor of Education, Teachers College, Columbia University, New York City
Alexander Inglis, Assistant Professor of Education Harvard University, Cambridge, Mass.
Henry Neumann, Ethical Culture School, New York City
William Orr, Senior Secretary, International Y.M.C.A. Committee, New York City
William B. Owen, Principal, Chicago Normal College, Ill.
Edward O. Sisson, President, University of Montana, Missoula, Montana
Joseph S. Stewart, Professor, University Georgia, Athens,
Milo H. Stuart, Principal, Technical High School, Indianapolis, Indiana
H. L. Terry, State High School Inspector, Madison, Wis.

The rest of the commission is composed of chairmen of the committees appointed by the commission.

* Chairman of the commission

Committees on Secondary School Subjects

The Commission on the Reorganization of Secondary Education in the United States appointed, in accordance with the reorganization program, a number of committees to investigate some of the important subjects in the secondary school curriculum and to recommend suggestions or changes which will aid in the improvement and progress of secondary education in this country.

I will discuss the reports on what I consider four important subjects in secondary education:

Report of the Committee on Social Studies-1916
Report of the Committee on Physical Education-1917
Report of the Committee on Science-1920
Report of the Committee on Mathematics-1920

Three other committees were appointed by the reorganization commission which will be included in the latter part of the thesis:

Report of the Committee on Vocational Guidance-1918
Report of the Committee on the Cardinal Principles-1918
Report of the Committee on Character Education-1927

Report of the Committee on Social Studies-1916

Point of View

The Committee on Social Studies believes that high-school teachers have the best opportunity ever afforded any social group to improve the citizenship of the land. This assumption is based on the fact that the million and a third high school students is perhaps the largest number of persons in the world who can be directed into systematic effort to acquire this spirit. Thus, good citizenship should be the aim of the social studies program in secondary education.

General Conculsions

Effective social training depends upon its organic continuity with the work of the elementary school in the same field. Thus, social studies should be introduced early in elementary school and continued up through the secondary period.

The committee submits the following general plan of social studies as proposed for the years from seven to twelve:

Junior Cycle (7-12)
- Geography
- European history
- American history
- Civics

Senior Cycle (10-12)
- European history
- American history
- Problems of democracy, social, economic, political

Committee Members

*Thomas Jesse Jones, United States Bureau of Education, Washington, D.C.
xArthur William Dunn, United States Bureau of Education Washington, D.C.
W. A. Aery, Hampton Institute, Hampton, Va.
L. Lynn Barnard, School of Pedagogy, Philadelphia, Pa.
George G. Bechtel, Principal, Northwestern High School, Detroit, Michigan
F. L. Boyden, Principal, High School, Deerfield, Mass.
E. C.Branson, University of North Carolina, Chapel Hill,N. C.
Henry R.Burch, West Philadelphia High School, Philadelphia, Penn.
F. W. Carrier, Somerville High School, Somerville, Mass.
Jessie C. Evans, William Penn High School for Girls, Philadelphia, Penn.
Frank P. Goodwin, Woodward High Schoo, Cincinnati, Ohio
W. J. Hamilton, Superintendent of Schools, Two Rivers, Wisc.
Blanche C. Hazard, Cornell University, Ithaca, New York
S. B. Howe, HighSchool, Newark, New Jersey
Clarence D. Kingsley, State High School Inspector, Boston, Mass.
J. Herbert Low, Manual Training High School, Brooklyn, N.Y
William H. Mace, Syracuse University, Syracuse, New York
William T. Morrey, Bushwick High School, Brooklyn, New York
John Pettibone, High School, New Milford, Connecticut
James Harvey Robinson, Columbia University, New York City
William A. Wheatley, Superintendent of Schools, Middletown Connecticut

*Chairman
xSecretary

Specific Recommendations

The committee submitted arrangements for teaching social studies in the junior high school. I chose what I considered was the one adopted by a majority of junior high schools.

7th Grade:

Geography-½ year
Prominent Nations of the world: Holland, France, Italy, China, Japan, etc.
Four great Nations of the world:
Britain, Germany, Russia, United States

History-½ year
European beginnings in America
Note. These two courses may be taught in sequence or parallel through the year

Civics--taught as a phase of the above, or segregated in one or two periods a week, or both
Democratic beginnings

8th Grade:

American History--½ year
Periods of American History

Civics--½ year
Colonial Governments
Representative Governments

Geography--taught incidentally to, and as a factor in the above subjects
North and South America

9th Grade:

Civics-- ½ year
Community aspects
Civics--½ year
Economic and vocational aspects
Note. One year in sequence or parallel
History--relation to above topics
Local historical problems--New England, etc.

The course of study I have just presented, as formulated by the committee, is almost identical with the course of study used in the Springfield schools. One may safely say that Springfield secondary education is typical of the type existing in other secondary schools in the country. The courses may vary slightly due to environmental conditions that necessitate a revision.

The committee recommends as appropriate to the last three years of secondary school the following courses:

1st. year of high school:

European History--1 year (or ½ year)
Approximately to the end of the 17th century
Ancient and oriental civilization
English history to end of period mentioned
Period of American exploration

2nd. year of high school:

American History--1 year (or ½ year)
Since the end of the 17th century

3rd. year of high school

Problems of American Democracy--1 year (or ½ year)
Social, economic, political

The committee has arranged the studies in such a manner as to give the student a broad perspective of the historic, geographic and civic aspect of civilization.

Report of the Committee on Physical Education 1917

In this new civilization, one of the most important problems of the high schools, and of the physical education programs, is the securing and conserving of health. The importance of this point was illustrated when the Committee on the Cardinal Principles placed health as the most important aim and objective of education.

Theoretically, educators believe that health is more important that quantity of knowledge, but seldom do they practise this belief. According to the committee, the present arrangement for physical activity can only be looked upon as a measure of relief from the school desk. Health has definite relation to the vigorous exercise of all the muscles of the body, especially the big muscles of the trunks and legs. Instruction should be furnished in the form of exercises and games that will utilize, to a large extent, these muscles. Thus, methods of instruction should be devised to allow for freedom and bodily movement, even in academic work. Accordingly, the Committee on the Reorganization of Secondary Education felt the need for appointing a committee to suggest and recommend plans to aid in the conversation of the student's health. The following men were selected to act:

J. H. McCurdy, M. D., Director of Physical Education, International Y.M.C. A. College, Springfield, Mass. Chairman

Thomas Balliet, Dean of the School of Pedagogy, New York University, New York City

John Brown, Jr., M. D; national Y.M.C.A. Secretary for Physical Education, Canada, Toronto, Ontario

Walter Y. Chapin, M. D., Medical Inspector, Springfield, High Schools, Springfield, Mass.

George E. Dawson, Director of Psychological Laboratory, Public Schools, Springfield, Mass., Hartford, Conn.

A. E. Metzdorf, Director of Physical Education, Public Schools, Springfield, Mass.

William Orr, Senior Education Secretary, International Y.M.C.A. Committee, New York City

William Skarstrom, M. D., Professor of Physical Education, Wellesley College, and Director of Practice Teaching in Physical Education in Public Schools, Wellesley, Mass.

William A. Stecher, Director of Physical Education, Public Schools, Philadelphia, Pa.

Recommendations of the Committee on Physical Education

The committee compiled what they considered is the ideal type of health program that should be practiced in all secondary schools in the country.

The health needs of the high school pupil call for the following health program:

I. Health Examination

1. Medical inspection
   a. Detection of infectious diseases, physical defects, unsanitary room conditions
   b. Cooperation of physical instructor and medical inspector
2. Mental examination
   a. Discovery of types of students, the subnormal or the supernormal
   b. Well-balanced course for all types
   c. Explanation of grades of a student in light of his physical activities
3. Physical examination
   a. Examination of eyesight, hearing, height and weight, bodily strength, lung capacity, cardiac efficiency
   b. Correlation of above with adolescent maturity and scholarship

II. Healthful Environment in Home and School

1. Ideal home and school with proper lighting, ventilation and sanitation
2. Correct arrangement of school schedule to increase bodily movement and relieve nervous tension

III. Instruction in Health Problems

1. Practical elements
   a. Diet, care of teeth, sleep, exercise
2. General conditions related to health
   a. Room temperature, ventilation, dust, posture

IV. Physical Activities

1. Equipment
   a. Gymnasium, shower, dressing room, playground
2. Time allotment
   a. Hygiene instruction once per week 15
   b. Passing to locker room and undressing 15
   c. Exercises and games 45
   d. Shower, dressing, passing to dass 15
   Total minutes 90
3. Types of exercise
   a. Physiological
      Exercise for big muscles, athletics, swimming, team games
   b. Character building
      Boy Scouts, Campfire Girls
      Games to develop courtesy, fair play, alertness, promptness, etc.

V. School Credit

Courses in hygiene should receive equal credit to other classroom subjects. Physical practice should receive positive credit on the same basis as laboratory courses.

The committee believes that a well balanced program of activity under competent supervision should secure physical, social, educational, and moral results.

A program of this type is being carried on in all public high schools at the present time.

Committee on Vocational Guidance
1918

In no other country in the world do so many boys and girls receive a regular high school education of a general type of culture as in the United States. American democratic ideals demand not only that all individuals should have as equal an opportunity in education but also that men should be employed in that form of work by which they may contribute most to their own happiness and common good. Youths must be assisted in selecting occupations and finding employment in that type of work that enriches their life. Yet, we have less experience in vocational guidance than we have had in education.

The Commission on the Reorganization of Secondary Education states that vocational guidance is an essential and important function of secondary education. Unless plays for such a guidance course are thoroughly incorporated and continuously operated, the efforts of the secondary schools will be largely misdirected in behalf of the adolescent boys and girls. For this reason, the commission appointed the following authorities in the field to serve on the Committee for Investigation:

Frank M. Leavitt, Associate Superintendent of Schools, Pittsburgh, Pennsylvania
Frederick Allen, Bureau of Vocational Guidance, Harvard University, Cambridge, Mass.
John Brewer, Normal School, Los Angeles, California
Arthur Chamberlain, California State Director of Education, San Francisco, California
Randall Condon, Superintendent of Schools, Cincinnati, Ohio

Randall Condon, Superintendent of Schools, Cincinnati, Ohio
Jesse Davis, Principal of Central High School, Grand Rapids, Michigan
Clarence Kingsley, State High School Inspector, Boston Mass.
George Payne, Principal of State Teachers College, St. Louis, Missouri
Eli Weaver, Boys High School, Brooklyn, New York
Louis Wentworth, Vocational Director, High School of Practical Arts, Boston, Mass.

The committee members in total agreed upon the idea that the aim of this investigation should be to discover what has been done in the past to aid individuals in a wise choice of vocations and what could be done in the future to improve upon the idea.

The purpose of this report is to outline a comprehensive plan for vocational guidance as an integral part of secondary education and to indicate the responsibility of secondary schools for the vocational adjustment of all pupils of secondary age, occupied either at or away from school. The committee is hopeful that this report will stimulate interest and promote greater experimentation in the field of vocational guidance. The suggestions offered are not only for the benefit of school administrators but for the daily teachers who, in direct contact with the students, may counsel and inspire them.

General Conclusions of the Committee

It is not the purpose of a vocational guidance program to make decisions for students in advance as to what occupation they should follow nor to project them into life's work at the earliest possible moment. It is unwise to classify them prematurely by any system of analysis, either psychologically, physiologically, socially or economically. Emphasis should be made on a decision by rather than for the pupil.

Vocational guidance should develop an interest in conditions prevailing in child employment industries and help bring about an improvement of those conditions. It should utilize the co-operation of all social service agencies that could be of assistance. For society, it should result in a more democratic school system, a wiser economy in expenditure of school time and a more genuine culture.

The committee concludes, as a result of their investigation, that there are three major types of pupils that require vocational guidance:

1. The first group includes those students who leave school at the termination of the compulsory age limit. This group needs instruction in occupational problems and some compulsory continuance in school work before they take leave. In light of the fact that they will still be wards of the school system, they should continue to receive benefits of training through part time attendance at school.

2. The second group is made up of pupils who remain in school from four to six years beyond the sixth

grade, but who do not enter higher institutions. It includes drop-outs and the majority of high school graduates. There is a necessity for guidance in choice of curriculum, vocational information, and placement. In many schools, occupational courses are developed. Plans have been devised for bringing children into contact with business men. These plans have been carried out by the Junion Association of Commerce and Vocation Clubs and by systematic placement in temporary employment. The Employment Department of the Y. W. C. A. and Y. M. C. A., the School Placement Bureaus help in placing many of the graduates.

3. The third group is composed of individuals who expect to pursue studies in higher institutions. They need guidance in the choice of curriculum, of elective courses within the curriculum chosen, and of higher institutions to be attended. For this last group, employment supervision and placement are unnecessary but vocational information is valuable.

Special Recommendations of the Committee

In brief summation, the committee recommends a reasonable and comprehensive vocational guidance program:

I. A survey of the world's work

Every curriculum should provide sufficient diversity to give pupils as wide experience with vocational interpretation as limitation of school and time conditions permit. Special courses should be given to instruct in such phases of the world's work as may be comprehended by the class. Study of occupations should be made to discover the interests of the pupils.

II. Studying and testing pupils' possibilities

Pupils widely differ in regard to capacities and aptitudes. An adequate vocational guidance program will develop the student to the point where he will appreciate and evaluate his own capacities. Pupils may be tested by try-out courses in high school, or more appropriately in the junior high school. Extra-curricular activities should be utilized to discover aptitudes.

III. Guidance in choice and re-choice of curriculum

The choice in a vocation should be made early so as to make some preparation before leaving school. An early choice, however, should be only provisional. Encouragement should be given a pupil to revise his choice when an insight

into the world's work and a discovery of certain capacities signify that he rechoose his vocation. The curriculum should be organized to permit such a change with minimum of loss. Early choices should be made between wide fields of activity rather than narrowed down to a specific vocation. Gradually the child will fix his attention upon one activity.

IV. Guidance with reference to preparation for a vocation

The secondary school should seek to give the broadest educational program consistent with valid demands of higher type of education pupils pursue. For pupils with no choice, it should offer variety of work in order to help them in the formulation of an intelligent purpose.

V. Guidance in entering work "Placement"

The purpose of this movement is to bring the pupil desiring work into contact with an employer seeking an employee. Forethought should be given to requirements for obtaining the position. If the character of the candidate is suitable, success may be promised the youth.

VI. Guidance in employment "Employment Supervision"

The vocational guidance program requires that all children under eighteen years of age, either employed in or out of school, be under the supervision of education authorities. To aid in progress, employers should send the school reports and school officers should visit at frequent intervals.

VII. Progressive modification of school practices

An effective vocational guidance program should lead

the school to modify its practices from time to time, to prevent it from concentrating on special courses for vocations and slighting other necessary cultural courses.

VIII. Progressive modification of economic conditions

A student should be taught to adjust himself to his environment but he should be equipped to change it. Toward this end, the vocational guidance program should aim. Twenty years from now vocational life will be permeated with the spirit of co-operation. Because of this fact, the child must acquire the spirit by training in the classroom and the school community. If this spirit is developed to a great extent, many of the economic and social problems of the day would be solved. It would lead to the solution of community problems of economy and society on the basis of mutual welfare.

Vocational guidance, in secondary schools today, in the majority of cases, is given by the individual teachers. In some schools, one teacher is appointed to act as the vocational guide. The developement of the Parent-Teacher Associations has solved this problem of guidance to a marked degree. Through this movement, the co-operation of the parents is enlisted.

Cardinal Principles in Secondary Education
1918

The Reviewing Committee of the Commission on the Reorganization of Secondary Education attempted to state, through investigation, what it considered should constitute the Cardinal Principles in Secondary Education. What fundamental principles would prove most helpful in direction of secondary education.

An analysis of the activities of an individual helped the committee to formulate the main objectives to guide education in a democracy. Normally the individual is a member of a family, of a vocational group, of a civic group, and is called upon to engage in activities that enrich the family life, render vocational services and promote community welfare. Thus, we see the worthy home membership, vocation, and citizenship demanding attention as three leading objectives. Every individual needs time to cultivate personal and social interests. If rightfully used, the result will be an enlargement and enrichment of his life. Of course, one of the most important objectives which runs through all the other principles is health. The individual could not discharge duties of life successfully or benefit from his leisure hours unless he is equipped with good health. This is also necessary to the vitality of the race and the defense of the Nation. Various processes of writing, reading and talking, the fundamental tools of life, are needed in daily

affairs. The realization of the objectives already named are dependent upon the ethical character of the individual.

> "They are at once the fruits of sterling character and the channels through which such character is developed and made manifest."

Accordingly, the committee concluded that the following seven principles should serve as the main objectives and aims of education--The Seven Cardinal Principles:

1. Health
2. Worthy Home Membership
3. Command of Fundamental Processes
4. Vocation
5. Citizenship
6. Worthy Use of Leisure Time
7. Ethical Character

Role of Secondary Education in Achieving these Objectives

The secondary education program may readily carry out these objectives by penetrating them into many subjects in the curriculum. The following provisions may be made by the secondary school:

I. Health
   1. Health instruction to inculcate health habits
   2. Physical activities
   3. Hygiene
   4. Cooperation with home to safeguard and promote health interests

II. Command of Fundamental Processes
   1. Proficiency increased by application to new material
   2. Parallelism of instruction and practice

III. Worthy Home Membership
   1. Development of qualities to make the individual a worthy home member
      a. Social Studies--deal with the home as a fundamental social institution and clarifies its relations to wider interests outside
      b. Literature--interprets and idealizes the human element that makes a home
      c. Music and Art--aids in the beautification of the home and the creation of greater joy within
      d. Household Arts--a course for girls, to make them better helpers, etc.
      e. Special Boy's Course--to give them an intelligent appreciation of the value of a well run home

IV. Vocation
   1. Development of the appreciation and the significance of a vocation to a community
      a. Establishment of right relations between members of a chosen vocation, among vocational groups, between employer and employee
   2. Specific preparation for trade or occupation

V. Civic Education
   1. Principles to be instilled in the student
      a. A many sided interest in community affairs
      b. Loyalty to ideals of civic righteousness
      c. Practical knowledge of social agencies and institutions
      d. Good judgment as to the means and methods of promoting one social end without defeating others
      e. Attitude of cooperation in social undertakings

   2. Means of developing these principles
      a. Projects
      b. Co-operative and socialized recitation

   3. Contributory subjects
      a. History--growth of institutions and their present value
      b. Geography--interdependence of man: common dependence on nature
      c. Civics--functions of governments, social agencies
      d. English--kindle social ideals and give insite into social conditions

VI. Worthy Use of Leisure Time
   1. Equip individual with ability to derive from leisure recreation of mind, body, spirit to enrich personality
   2. Contributory subjects
      a. Music, Art, Literature, Science

VII. Ethical Character
   1. Development of the sense of responsibility and initiative
   2. Arousal of the spirit of service
   3. Establishment of the principles of democracy

Note. Spirit of co-operation should permeate the entire school

The committee believes that these principles should be interrelated in all possible ways. Health is important in all principles, and in all stages of development. Citizenship and worthy use of leisure time are important in early

and later stages. To go a step further, it is only as the pupil sees his vocation in relation to his citizenship and his citizenship in relation to his vocation will he be well prepared to become an effective member in an industrial democracy. The committee ardently protests against the idea of divorcing vocation and social, civic education. As for all the Cardinal Principles, they stand squarely for infusion.

The Cardinal Principles are and will always serve as the main objectives of education.

Recognition of Objectives in Organizing a Secondary School

The committee believes that the objectives should determine the organization of the school. If the school is an organization on subjects alone, there tends to be an overvaluation on subject-matter. Thus, the teacher will regard his function as merely that of leading the pupil to the mastery of a particular subject, other than using the subject-matter and the activities of the school as means for realization of the objectives.

The committee suggested two methods by which the Cardinal Principles may be realized in a well organized secondary school:

I. Principal's Council
   1. Purpose--selection of teachers who will be charged with the responsibility to study and discharge the activities with reference to a specific objective
   2. Members
      a. Health Director--considerations for ventilation and sanitation of the building, physical training, extra-curricular activities, hygiene
      b. Citizenship Director --foster civic-mindedness: supervise school paper, debates, etc.
      c. Curriculum Director--study needs of specific cations taught in the school; learn of aspects in success and failure of graduates to improve school work

II. Committees

Appointment of committees of teachers, each to be charged with duties similar to those described in the Principal's Council. This committee has one advantage over the first method discussed. It utilizes a large number of teachers and through this work, they acquire a broad educational point of view.

To this committee, it is apparent that the problems of secondary eduaation merit more serious attention than they have received. It is their firm belief that secondary in the United States should aim at nothing less than complete and worthy living for all youths and that their objectives set forth must find a place in the life of every boy and girl. "While seeking to evoke the distinctive excellencies of individuals and groups, secondary education must be equally zealous to develop those common ideals and modes of thoughts, feelings, actions, whereby America, through a rich, unified, common life, may render her truest service to a world seeking for democracy among men and nations."

Report of the Committee on Science in Secondary Schools 1920

There is a widespread recognition of the need for reorganizing science courses in secondary schools. The variation of purposes for which sciences are taught, the increase in intensive specialization within various sciences, the great variety of sciences offered, and the lack of sequence in the order in which they are frequently given are evidences for a need of reorganization.

The committee feels after reference to the "Cardinal Principles" that science instruction is especially vaulable in the realization of six of these objectives; health, worthy home membership, vocation, citizenship, worthy use of leisure time, and ethical character.

The following members served on this very important committee:

P. Brayton, High School, Medford, Mass.
Thomas Briggs, Teachers College, New York, N.Y.
Otis Caldwell, Teachers College, New York, N.Y.
C. K. Carpenter, School of Practical Arts, Teachers College New York, N. Y.
John Coulter, Chicago, Illinois
G. A.Cowan, West Roxbury High School, Boston, Mass.
P. M. Dysart, Schenley High School, Pittsburgh, Pa.
Thomas Eason, State Department of Education, Richmond, Va.
Walter Eddy, Teachers College, New York, N. Y.
Charles Fender, Lowell High School, San Francisco, Calif.
William Field, Milton Academy, Milton, Mass.
Leroy Harvey, State Normal School, Kalamazoo, Mich.
F. E. Heald, Agricultural College, Amherst, Mass.
W. A. Hedrick, McKinley High School, Washington, D.C.

Blanche Higgenbctham, High School, Houston, Texas
L. D. Higgins, State Normal School, Danbury, Conn.
Louis Hole, High School, Pittsburgh, Pa.
L. E. Jenks, University of Buffalo, Buffalo, N.Y.
Henry Kerr, High School, Fresno, Calif.
C. D. Kingsley, State High School Supervisor, Boston, Mass.
Charles Kofold, University of California, Berkeley, Calif.
C. R. Mann, Educational Division, U. S. War Department
William Orr, International Committee of Y.M.C.A., New York
R. W. Osborne, Francis Parker School, Chicago, Ill.
J. C. Packard, High School, Brookline, Mass.
I. O. Palmer, Technical High School, Newtonville, Mass.
George Parker, Harvard University, Cambridge, Mass.
James Peabody, Morris High School, New York, N.Y.
Mabel Peirson, High School, Pasadena, Calif.
S. R. Powers, University High School, Minneapolis, Minn.
J. A. Randall, Toledo Scale Company, Toledo, Ohio
B. J.Rivett, Northwestern High School, Detroit, Mich.
C. M. Sharp, Manual Training High School, Indianapolis, Ind.
Harold Shinn, Carl Schurz High School, Chicago, Ill.
M. D.Sohon, Morris High School, New York, N.Y.
Milo H. Stuart, Technical High School, Indianapolis, Ind.
H. L. Terry, State High School Supervisor, Madison, Wisc.
Tillman, High School, Hammond, Ind.
G. R. Twiss, Ohio State University, Columbus, Ohio
Fred Ullrich, State Normal School, Platteville, Wisc.
Herbert Walter, Brown University, Providence, R.I.
J. S.Wauchope, Mechanical Arts High School, St. Paul, Minn.
H. A. Webb, George Peabody College for Teachers, Nashville, Tenn.
C. M. Westcott, Hollywood High School, Los Angeles, Calif.
W. G. Whitman, State Normal School, Salem, Mass.
R. H. William Scarborough School, New York
J. F. Woodhull, Teachers College, New York, N.Y.

All the committee members are physicists, chemists or biologists.

Recommendations of Committee on Science

The committee feels that there are four types of secondary schools to consider when organizing science sequences. Thus, under each of these types, they have selected what they consider as appropriate under these different types of high schools:

I. Junior-senior high school
   7th or 8th grade--General science, inclusive of hygiene
   9th or 10th grade--Biological science, inclusive of hygiene
      General Biology
      Botany
      Zoology
   11th and 12th grades-- Differentiated elective courses:
      Chemistry
      Physics
      General Geography or physiography
      Advanced biological sciences

II. Large comprehensive four-year high school
   1st year--General science, inclusive of hygiene
   2nd year--Biological science, inclusive of hygiene
      General Biology
      Botany
      Zoology
   3rd year--Differentiated elective courses
      Chemistry
      Physics
      General Geography or physiography
      Advanced biological sciences

III. Four year high school of medium size
   (Same as preceding program)

IV. Small high school (not more than 200 pupils)
   1st and 2nd years same as above
   3rd and 4th years--Elective chemistry and physics

The committee concluded that the motto, "Not how much but how well" should control the choice of subject matter. Quality rather than quantity of knowledge should be sought.

Report of the Committee on Mathematics
1920

There are a variety of considerations that demand an inquiry into the reorganizing and reconstituting of secondary mathematics. Traditionally, algebra and geometry have been required for graduation. Is this advisable and necessary? In this growing age of differentiation, it is evident that consideration should at least be given the reconstruction of customary mathematical courses. The problem of method also needs consideration. Educators are now studying the proper presentation of subject matter in all school work. Should not this study extend to the secondary mathematics?

The Commission on the Reorganization of Secondary Education selected the following men to solve the problems and answer the questions:

William Kilpatrick, professor education, Teachers College Columbia University, N.Y.
Fred R. Hunter, superintendent, Oakland, Calif.
Franklin Johnson, University High School, University of Chicago, Ill.
J. H. Minnick, University of Pennsylvania, Phila., Pa.
Raleigh Shorling, Lincoln School, New York, N.Y.
J. C. Stone, head of department of mathematics, State Normal School, Montclair, N.J.
Milo H. Stuart, Technical High School, Indianapolis, Ind.
J. H. Withers, superintendent of schools, St. Louis, Mo.

Recommendations of the Committee on Mathematics

Due to extensive investigation in the field of mathematics in secondary schools, the committee concluded that certain methods of instruction be changed and issued suggestions as to courses of mathematics to be presented.

Considerations of presentation demanded that the traditionary logical arrangement of subject matter, especially for introductory work, should be avoided. It recommended an organization based upon the successful attack of projects and problems in connection with which the pupils already have both knowledge and potential interest.

According to the committee, there are four types or groups of students, judged, perhaps, by their destination, which necessitate four types of mathematical needs:

1. The "general readers"
   This group will have little need for mathematics other than ordinary arithmetic. However, they still require acquaintance with mathematical language and concepts. Their chief needs lie largely in the interpretative function of mathematics.

2. The group preparing for certain trades
   This group has relatively small use for practical mathematics. The general run of need is for simple formulas, equation, measurement of angles, areas, and volumes, etc. Of course, much practice will be necessary to make even this small amount of mathematics function properly.

3. The group preparing for engineering
   In this group, considerably more mathematics is needed. The content of the body of mathematics to be taught these boys, preparing for engineering schools, is determined by the demands of engineering study and practice.

4. The group of specializers
   This group is inclusive of those students who "Like" mathematics. Their content is determined by the satisfactions inherent in the activity and by the demands of further study.

Suggestions as to Courses

It seems to the committee that both the junior high schools and senior high schools should include a certain amount of subject matter, to be taught as comprehensively as possible in order to aid in progress of students in mathematics. Thus, the committee makes the following tentative suggestions:

Junior High School

1. Suggested subject matter
   a. Review of previous arithmetic
   b. A body of processes and conceptions, where the study is of social activities
      Algebra or intuitive geometry to prove of actual service in common life outside the school.
   c. Preliminary testing of mathematical taste and aptitude
      Note. The committee hopes that psychological tests may prove of material assistance in this connection.
   d. Additional content, as will be necessary to make effective the teaching of the foregoing.

Senior High School

1. Suggested subject matter
   a. Elective work for specializers

The committee feels that not all secondary schools will try to make full offerings of the courses suggested. It expects that work equivalent to that suggested by the Committee for Junior High School will everywhere be offered. It believes that the elective work for the senior high school may be restricted in small schools where the income is small.

The committee in conclusion deprecates the continued disposition on the part of some colleges to dictate the contents of courses in secondary schools. I believe, in reading these reports, that the majority of committee members feel exactly the same way. Such a usurpation of power prevents the secondary school from making the most intelligent adaptation of its work to the need of the pupils.

Recommendations of the Committee on Mathematics In Practice

The following textbooks on mathematics include recommendations of this committee:

Smith, Rolland	Beginner's Geometry
Barber, Harry	Second Course in Algebra
Smith and Smith	Solid Geometry
Rothrock, David Whitacre, Martha	Second Year Algebra
Schorling, Raleigh Clark, John Smith, Rolland	Modern School Mathematics
Edgerton, Edward Carpenter, Perry	Complete Algebra
Wells, Webster Hart, Walter	A Second Course in Algebra
Stone & Virgil	The New Mathematics

This list is by no means exhaustive. It represents some of the books on mathematics taken recently at random from the desk of a teacher of mathematics in Springfield, Massachusetts.

Report of the Committee on Character Education 1927

Any person dealing with character education is at once confronted with complex and perplexing problems. For this reason this committee has been carrying on its work for several years by sub-committees. The committee was organized in this manner:

Eight sub-committees were formed, each to carry on investigation on a separate problem. The problems for investigation were:

1. Processes of Character Education
2. Classroom Procedure
3. Curriculum Materials
4. School Cummunity
5. Character Scales and Measurements
6. Teacher Training
7. Delinquency forms, causes and prevention

The Reviewing Committee of the Commission on the Reorganization of Secondary Education served as chairman heads for each sub-committee.

The committee hopes that some day, character training will become an integral part of the school program. It has developed in extra-curricular activities and is gradually becoming interrelated with all subjects in the secondary school program.

Conclusions of the Committee on Character Education

Through investigation, the Committee on Character Education concluded that the prime factor in the development of personality is the influence of other personalities. Thus, character development is a problem of community life, and all the social institutions and agencies must cooperate in this responsibility.

Briefly, I will state a summary of ideas which the committee members arrived at in dealing with the several subjects.

The main processes of character development involve the emerging and strengthening of those elements in the child's volitional flow. These elements in character development present themselves first in confusion and obscurity. Out of this confusion emerges by selection and integration the character of the child. This developmental process continues by ceaseless action. The whole process is social and takes place in the community where the educand lives and associates with his fellowmen. Briefly, the character development of a child is an expansion and enrichment of the "I" emerging into new and wider forms of "We".

We now place the child in school to observe how the institution of school can aid in the development of the character of the child. The classroom should utilize

every occasion to develop the child's powers of moral thoughtfulness and stimulate responses in agreement with moral standards. It should recognize his experiences as meaningful, significant, purposeful, socially vaulable and appealing. The child to be really moral must not only see the right but love and exercise it. In the elementary school, these ends can be realized by the study of concrete instances of conduct in the child's own experiences. In high school, the study of problems of conduct may be widened to institutions, to climax in the formation of principles. According to the committee, the problem method is the best method of developing moral judgment.

Correct curriculum materials are needed for successful progression of character development in the school. The committee organizes curriculum materials into two types:

1. Character issues of primary importance where courses of study include an independent place for the subject of character education

2. Character issues of incidental importance where other school subjects include moral issues
   Illustrations: arithmetic, literature history

In junior high school, two sources of moral enlightenment are found in the study of community civics, where the child experiences a first hand study of community life, and a study of biographies. In senior high school, a course in ethics illustrates clearly how immoral acts may injure individuals, society and institutions.

The school community is the one important place where the character of the student forms and develops. High standards of conduct may become a tradition of the community and grip every member. These traditions may find expression in some form of pupil activity, student government, or in some cases in the honor system as applied to the school. Discipline is, of course, a necessary element in school procedure. However, it should not be carried to the point where it may weaken the character of the child. Abundant opportunity for freedom and exercies may be afforded without repression. Opportunities are found in plays, debates, contests, etc. In a high school in Los Angeles, elaborate plans for clubs are developed in which administrative, philanthropic and social activities are promoted. Iowa has a unique plan for character education. Its aim is practice for good life. One ethical situation solved is worth more to a child than numerous imaginary moral questions. "Practice good life rather than entertain thoughts about it." The National Child Welfare Association, New York, is sponsoring an organization for character developement in school. A huge castle is drawn on the board. For every good moral act a child commits, his name is written on one of the blocks of the castle. The interesting part about this movement is that it places the primary responsibility on the parents where it belongs and the school supplies the leadership.

Character education would not be a successful movement

unless the teachers were prepared or at least acquainted with the methods and subjects contributing toward the development of rich character. There are certain subjects with which the teacher should be acquainted as they are excellent for character formation. Biology provides a method of studying and interpreting life processes. It helps the teacher to work out a philosophy of life. Huxley once said, "Whatever else you do, keep that light burning, but remember that biology has supplied a new and powerful illuminant." Psychology furnishes a concept of personality. Sociology and Ethics equip the teacher with knowledge of right and wrong doings and their effects on society. In consideration of the methods of character education, three factors are involved; the pupils, the teacher, the subject. Two methods may be used in teaching:

1. Socratic method--the teacher accepts the answer of the pupil as sincere expression of the learner and bases the next question on the last answer.

2. Catechetical method--control from the standpoint of subject matter and the centering of the student's attention on one specific subject

The Committee members go a step further to formulate a valid study of the role of character in the causation of and the treatment of delinquency. G. Stanley Hall says, "Crime is a reaction against a constantly increasing tendency

toward a higher altruism". The committee says that it is a violation of a group's legalized taboos by one who is presumed to be a more or less responsible member thereof. The great problem is why do people violate these taboos. Every human being possesses native traits when uneducated are contrary to the welfare of society to achieve what society believes as the abundant life for the greatest number. Hence, the expression of these native instincts must be checked. These checks are our criminal codes. The social conduct of a person is a balance between the expression of his desires and the repression of society. There are now three types of people:

1. Sub-social or delinquent, where the repressive forces of society are overruled by the expressive force of the individual. (Socially-negative)
2. Social where the two forces are equal. (Socially-neutral)
3. Super-social where the repressive force overrules the expressive force. (Socially-positive)

Certain factors of social and self control enfeeble this negative equilibrium. If delinquency is the uniform consequences of different antecedents, then the terms delinquency and crime are generic, and become comparable to sickness and disease. The terms are wide and apply to a large group of different entities. Thus, the treatment of delinquency would be the same as the prevention of disease, the isolation of types, patterns, symptons, complexes. Delinquency cannot be treated in bloc.

The direct moral instruction, included in the realization of all objectives of character education, must utilize the home, the school, the church, the state, the vocations, and the general social life. If all these institutions put forth all their energy in aiding in the formation of the character of the child, I am sure that this last report on delinquency could have been entirely omitted.

in Des Moines, two large gymnasiums are divided into four parts. The school has an enrollment of fifteen hundred students. Consequently, every boy and girl is able to have a sixty minute period of health and physical education. Adequate indoor facilities are found in Buffalo, Detroit, Omaha, Wichita, Redwood City, Los Angeles and many other places. 1

5. The climax in the progress of physical education in the schools was the growth, in number, of physical education teachers. In 1928, twenty-thousand teachers were employed as health promoters in the schools. West Virginia, in a period of five years, showed an increase of four hundred percent in the number of full time teachers of physical education. In Ohio, three hundred new full time teachers were created for the first time. In Massachusetts, an increase in the teaching staff from two hundred and one special teachers in 1922 to four hundred and ninety special teachers in 1927 was marked. From 1927 to 1932, physical education held an important place in the Massachusetts schools. When unfortunate financial conditions hit the country, although physical education lost none of its prestige as an important subject in the curriculum, the number of physical education instructors was decreased. The conditions now are the same. 1

1--Journal of N. E. A. May 1928

JUSTIFICATION OF THE REPORT OF THE COMMITTEE ON THE SEVEN CARDINAL PRINCIPLES

This section is included as presenting concrete evidence that the work of the committees covered in the thesis is functioning in the educational program of the country.

The National Education Association Committee, in proclaiming the seven Cardinal Principles, in 1918, aroused enthusiasm and interest in every school teacher to realize, in his field, the seven Cardinal Principles. In naming these seven objectives of education, the committee gave first rank to Health. The means in schools for promoting this objective is by the adoption of a well rounded program in health and physical education, play, recreation, sports, and the provision of adequate space and facilities.

In the ten years following the proclamation of the seven objectives of education, considerable progress was made in the schools to promote the health of the student. To illustrate advancement in this field, an evaluation of progress may be shown by analyzing the progressive steps in this field:

1. The first and most important step was the universal recognition, by legislature, of physical education programs. Thirty-five states adopted compulsory physical education laws, twenty-nine states adopted state programs with state

syllabi, and nineteen states established a state department of physical education with a staff, program, and budget. 1

2. The second important step was the requirement of physical education for promotion and graduation. Most of the states and cities in the country allow credit value for a physical education course in the high school. Three states accredited unit value for a course in physical education for admission to universities. 1

3. In many large cities in the nation, to avoid conflicts in programs, periods, etc. between physical education and other curricular subjects, physical education is entered first in the students program, given its full time, and the other subjects distributed accordingly. 1

4. Growth in size and number of playgrounds, athletic fields, gymnasiums, swimming pools, and outdoor facilities has been extensive. No junior or senior high school, with an enrollment of four hundred students or more, has been erected in the last fifteen years without a gymnasium or an athletic field. In Des Moines, Iowa, the elementary school is equipped with a special gymnasium and large playground facilities. In Providence, Rhode Island, the new elementary schools in the process of construction are to be equipped with two gymnasiums. In the junior high school

1--Journal of the N. E. A. January 1929

Classes in health instruction became compulsory in many schools in various parts of the country. In Fall River, Mass., a compulsory course in health training is found in the high schools. The class meets once a week, with an enrollment of about four hundred students. The aims of such instruction is to instill in the student a desire for clean health habits. At the start of the course, in 1932, the students rated themselves in health habits. Most of the boys and girls averaged between forty and sixty percent. At the end of the course, they averaged between ninety to one hundred percent for the application of good health habits. At the outset of one of the courses, forty percent of the applicants were underweight. This percentage was reduced to twenty-five percent at the finale of the course. Records of the student's health is kept. This system is not only an incentive to better living but motivates all other studies. 1

The seven Cardinal Principles are being justified in the Granite District, Utah. Educational progress in this district show that these seven objectives of education can be made a reality in the lives of school boys and girls. This plan illustrates how these objectives may be realized in other school districts throughout the country.

1--Journal of N. E. A. June 1930

The plan for carrying out the aims of education is organized in the following manner:

1. A yearly registration is made of all students between the ages of twelve and eighteen, either in or out of school.

2. All the students enrolled in the school are engaged in project work in health, vocation, citizenship, arts, and recreation. These projects are outgrowths of classroom instruction. Here is an excellent example of education in action.

3. A group of advisory and regular teachers for the purpose of assuming the responsibility for progress in these projects was created.

4. A group of principals and teachers are employed during the summer to visit the pupil's homes, meet in groups with the parents and children, and aid in the provision of leisure time activities.

5. Direct contact between school, home, and community is carried out. Pupils are urged as part of their citizenship training to participate in worthy organizations, such as Boy Scouts, Girl Scouts, bands.

For the students in the Granite District, Utah, education is life. 1

At the present time, the National Education Association is issuing pamphlets on the seven objectives of education to be ordered by parents. This enriched plan of education adopted by the National Education Association and the National Congress of Parents and Teachers helps to make possible America's ideal of a fair start in life for every youth. 2

1--Journal of N. E. A. November 1929
2--Journal of N. E. A. March 1934

SUMMARY OF THE EFFORTS OF THE COMMITTEES SEEN IN TOTAL

Throughout the first part of the thesis, it is evident that each committee, in its own field, accomplished considerable by criticism and recommendation to aid in the contribution of that field of work to the secondary program of the country. Each committee, individually, has helped educational progress in its special field, and, totally, have established certain ideals and principles by which future education may be guided in this nation.

How have these committees nourished the educational system of our country? What ideas and ideals have they set forth, in sum, that created a new atmosphere for education? Education can be compared to a tree, the trunk of which is life, through which flows its nourishment, the sap of knowledge, into its seven branches, the Cardinal Principles. Dewey's theory, Education is Life, is the seed of the tree. The National Education Association and its committees are the cultivators. Therefore, one observes in reading through these reports that all of the committees set a distant goal toward which they strove willingly and untiringly. This goal was the realization

of what the committee of 1918 set forth as the main objectives of education in the United States, the seven Cardinal Principles:

Health
Command of Fundamental Principles
Worthy Home Membership
Vocation
Worthy Use of Leisure Time
Citizenship
Ethical Character.

All of these committees have attempted to establish and integrate into the entire educational system Dewey's theory, that Education is Life and not Preparation for Life. Each distinct division of education, the elementary, the secondary, with its junior and senior departments, and the higher units should not serve as stepping stones but as a revolution of continuity. Thus, higher education should intensify and expand the culture of the secondary school, while the secondary school should enlarge the liberal training given in the elementary school. At this point, it is necessary to mention the statement made by several of the committees, that the program of a secondary school should not be determined by the college. The higher institutions must not be allowed to hypnotise the the secondary units into selecting those subjects which they believe should be taught as a method of relieving any problem that may arise as to entrance requirements from a high school into a higher institution. The secon-

dary school should adapt the subject to the pupil and not the pupil to the subject matter. It should recognize individual capacities and aptitudes and furnish that type of guidance that will cultivate the child into a worthy member of society.

It is obvious that every individual's life is not composed of a series of distinct epochs, but successive interrelated and interlaced activities. Every committee contains this trend of thought. Each forcefully emphasizes and stresses the importance of relating each subject in the curriculum to every other subject therein. To illustrate this point, let us examine the relation of arithmetic to history. It would be impossible for anyone to account for the progress of civilization, as to the increase and decrease in population, the development of modes of transportation and of industry, etc., without mathematical computation. The committees stress the importance of interrelation within a subject. In studying the discovery of America, it is necessary to have a previous knowledge of conditions in Europe during that period. Through this method, the child gains a broader perspective of life, a more sympathetic attitude toward his fellowmen, which leads to the development of a rich and expansive personality. A nation wide interest has been aroused by

the committees. Each received the cooperation and opinions of many educators throughout the country.

The idea of better preparation of teachers for secondary schools has been built up tremendously. Teacher training institutions are more highly developed. The time is near where every high school teacher will be required to have at least two degrees, and the added ability to show her ingenuity in handling her subject matter, not as an entity, but as a relative to all other subjects in the high school curriculum.

The student has been lifted to a position where he becomes of prime importance in the determination of subject matter and method of instruction.

We fought an international revolution to make us an independent nation. We fought a civil revolution to make us a united nation. Why must we not fight a mental revolution to make us an educated nation? These mental revolutions are the result, in part, of extensive study on the part of the Committees of the National Education Association. It is the duty of the educators of the time to accept, with limitations, the recommendations of these authorities.

THE END

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Approved by

C. N. Moulton

H. M. Dorne

J. W. Alderman

Graduate Committee

Date May 29/36